

DESIGN PANEL NO. 37 10-30-97

APPLICATION SERVICES - Julia Samson

OVERVIEW

Application Services (CM symbol ASV) is a collection of Object Oriented classes that encapsulate APIs providing an interface between User or System Applications and System Services. This protects applications from any changes in the underlying System Services interface, as well as protecting system services from changes in user application tools. Subsequent adaptation to System Services can thus be accommodated through Application Services without altering the applications themselves.

Application Services CSCs are:

- FD Services (Thor)
- Constraint Management Services (Thor)
- User Display Services (Thor)
- Math Model Services (post - Redstone)
- End Item Manager Services (Thor)
- Prerequisite Control Services (Thor)
- Test Application Script (TAS) Services (post - Thor)
- User Advisory Services (post - Thor)
- Sub-System Services (Thor)

ACTIONS

Need a coherent plan for “Test Build “ that shows how all of the elements (FDs, applications, displays APIs, etc.) flow through the process. The plan should show where and what:

- Binding takes place
- Statistics are captured/ presented
- Integration capabilities are present

*Approved

ACTIONEE

ERP

DUE DATE

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SYSTEM VIEWERS CSCI - Gary Hrezo

OVERVIEW

System Viewers CSCI consists of the following:

Data Browser

The Data Browser provides the Checkout and Launch Control System (CLCS) with a method for selecting a Function Designator (FD) from a list of FDs. A list of FDs may be selected.

DMON Viewer

The DMON Viewer provides the Checkout and Launch Control System (CLCS) with a capability of providing facility to examine value, units, health, constraints, and time of update for one or more FDs.

Plot Viewer

The Plot Viewer provides the Checkout and Launch Control System (CLCS) with a tool to graph data values over time. The Plot Viewer interprets data for a Function Designator (FD) and displays it in a separate window. The window may be sized to reveal more plot detail, and additional features that increase the flexibility of the plot or plots are provided.

FD Details Viewer

The FD Details Viewer provides the Checkout and Launch Control System (CLCS) with the means to display on the Command and Control Workstation (CCWS) information pertaining to a Function Designator (FD). Data may be viewed in tabular format. Plotting support for data viewing is provided in the Plotting Viewer.

Data Health Viewer

The Data Health Viewer provides the Checkout and Launch Control System (CLCS) with a display to view the health and status of a Function Designator (FD) or set of FDs on CCWS. The Data Health Viewer is part of the enlarged FD Detail Viewer.

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PCL Viewer

The PCL Viewer provides the Checkout and Launch Control System (CLCS) the ability to display on the Command and Control Workstation (CCWS) detailed information pertaining to a Prerequisite Control Logic Function Designator (FD). The PCL Viewer is part of the FD Details Viewer. The PCL Viewer displays details about a PCL.

Change Calibration Coefficient Viewer

The Change Calibration Coefficient Viewer provides the Checkout and Launch Control System (CLCS) the ability to display the coefficients on the Command and Control Workstation (CCWS) and allows the user to change these coefficients. The Change Calibration Coefficient Viewer is part of the FD Details Viewer.

Data Fusion Viewer

The Data Fusion Viewer is a part of the FD Details Viewer. The Data Fusion Viewer provides the Checkout and Launch Control System (CLCS) the ability to display detailed information pertaining to a fusion-based Function Designator (FD) to the Command and Control Workstation (CCWS). The Data Fusion Viewer displays details about a fused FD, its component FDs and the algorithm used to calculate the fused FD.

Constraint Details Viewer

The Constraint Details Viewer is part of the FD Details Viewer. The Constraint Details Viewer is executed on the CCWS. The Constraint Details Viewer will provide the user a way to change the constraint expression.

Constraint Viewer

The Constraint Viewer is executed on the CCWS. The Constraint Viewer is invoked from the Control Navigation System (CNS) task bar. When a transition is encountered a transition message will be displayed by the Constraint Viewer.

ACTIONS

ACTIONEE

DUE DATE

STATUS

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|--|-----|
| 1. We need a plan for what files can be defined by users, how those files are retained and managed across test sets and time. Make sure to capture the following kinds of files: <ul style="list-style-type: none">• User preference• User defined files (e.g., DMON, CMD, Plot, FD list by user class)• Capabilities may require access across multiple RSYS. | ERP |
| 2. Prepare and present a Special Topics Presentation for a <u>near</u> future panel describing the pros and cons of being able to control RTPS elements (e.g., FDs, Gateway Tables, etc.) from system viewers. | ERP |

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3. What is the system reaction to constraints that are occurring from a single constraint at a higher ERP then “tolerable” by RTPS? What is the reate that RTPS cab tolerate?

*Approved

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SYSTEM STATUS VIEWER - Bill Weiner

OVERVIEW

The System Status Viewer provides the Checkout and Launch Control System (CLCS) with a viewer that displays the overall status of the Test Set and the detailed status of any subsystem in the Test Set.

Subsystem Integrity (SSI) running in each of the subsystem monitors the system health, status, and activity within the local subsystem and introduces this data into the data stream as a set of System Status FDs. These System Status FDs are then processed by Data Distribution as would any other FD. The System Status Viewer receives this status data via User Display Services and provides a Command and Control Workstation (CCWS) display that shows system status of each subsystem and the overall system status of the Test Set.

ACTIONS

What does ORT mean in CLCS?

*Approved

ACTIONEE

ERP

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COMMAND SUPPORT CSCI - Walter Clavette

OVERVIEW

Command Support facilitates the user and user applications in commanding the RTPS in the Command and Control Workstation (CCWS) and Command and Control Processor (CCP). There are three flows of commanding. The first is through the Command Processor or Command Scripter user interfaces on the CCWS. The second is through a GUI user application on the CCWS. The third is through a user application (EIM or TAS) executing in the CCP.

ACTIONS

Conduct a meeting to scrub the syntax of Thor commands. Determine if the syntax can be simplified either for Thor or post Thor. Include Pete Aeillo, Donna Gomez, Jack Blackledge, Robert Pierce and Hal Turner.

ACTIONEE

Walter Clavette

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DESKTOP DEBUG ENVIRONMENT - Al Folensbee

OVERVIEW

This thread establishes the application software Desktop Debug Environment (DDE) by building on the Redstone Test Bed Pathfinder products. Application software debug is performed jointly by the DDE and the IDE. Application software validation is performed in the IDE. The DDE provides a standalone light weight capability for individual application software developers to develop and debug all types of RTPS user application software products (including regression test scripts) from the office environment. The DDE is the application software primary debug tool and is capable of debugging the bulk of application software. The tool is light weight and has limitations necessary to make the cost of developing the tool affordable and executing in the existing desktop office computers. The IDE provides full debug of all application software functions but is a limited resource.

ACTIONS

ACTIONEE

DUE DATE

STATUS

No action required

*Approved